

(19) 世界知的所有権機関
国際事務局



(43) 国際公開日
2004年10月28日 (28.10.2004)

PCT

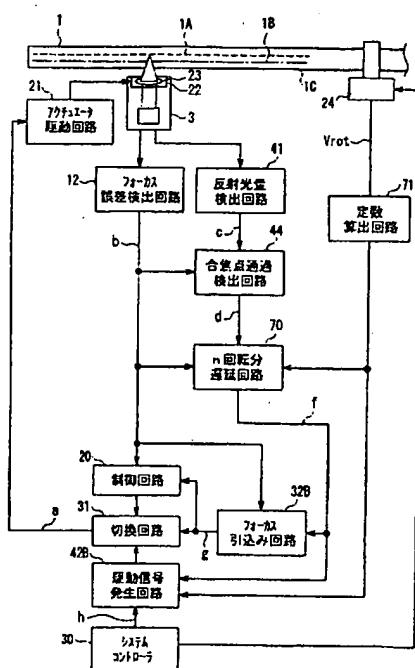
(10) 国際公開番号
WO 2004/093067 A1

- (51) 国際特許分類⁷: G11B 7/085, 7/125 (72) 発明者; および
(21) 国際出願番号: PCT/JP2004/005510 (75) 発明者/出願人(米国についてのみ): 吉川 昭
(22) 国際出願日: 2004年4月16日 (16.04.2004) (YOSHIKAWA, Akira). 山田 真一 (YAMADA,
(25) 国際出願の言語: 日本語 Shin-ichi).
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特願2003-113854 2003年4月18日 (18.04.2003) JP 30号OAPタワー26階 Osaka (JP).
特願2003-155341 2003年5月30日 (30.05.2003) JP
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(81) 指定国(表示のない限り、全ての種類の国内保護が
可能): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR,
BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM,
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ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS,
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NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE,

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(54) Title: OPTICAL DISC CONTROLLER

(54) 発明の名称: 光ディスク制御装置



- 21 ACTUATOR DRIVING CIRCUIT
12 FOCUS ERROR DETECTING CIRCUIT
41 QUANTITY OF REFLECTED LIGHT DETECTING CIRCUIT
44 FOCUS POINT PASSAGE DETECTING CIRCUIT
70 N-ROTATION DELAY CIRCUIT
71 CONSTANT CALCULATING CIRCUIT
20 CONTROL CIRCUIT
31 SWITCHING CIRCUIT
42B DRIVING SIGNAL GENERATING CIRCUIT
30 SYSTEM CONTROLLER
32B FOCUS DRAWING CIRCUIT

(57) Abstract: An optical disc controller capable of drawing focus in a short time for the target information plane of an optical disc having a plurality of information planes. An objective lens is brought close to the optical disc having a plurality of information planes by the output signal from a driving signal generating circuit. When a focus point passage detecting circuit detects passage of a first focus position and the objective lens is brought closer from that position to the optical disc by a specified amount, an n-revolution delay circuit outputs a reversal command f. After the objective lens was withdrawn from the optical disc while altering the orientation thereof, a focus drawing circuit switches a signal (a) being delivered to an actuator drive circuit from the driving signal generating circuit to a control circuit output signal and actuates the control circuit to draw the focus.

WO 2004/093067 A1

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SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US,
UZ, VC, VN, YU, ZA, ZM, ZW.

NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG,
CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(84) 指定国(表示のない限り、全ての種類の広域保護が
可能): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL,
SZ, TZ, UG, ZM, ZW), ユーラシア (AM, AZ, BY, KG,
KZ, MD, RU, TJ, TM), ヨーロッパ (AT, BE, BG, CH, CY,
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添付公開書類:

— 国際調査報告書

2文字コード及び他の略語については、定期発行される
各PCTガゼットの巻頭に掲載されている「コードと略語
のガイダンスノート」を参照。

(57) 要約:

複数の情報面を有する光ディスクの目標情報面に対して短時間でフ
ォーカス引き込みを行うことの可能な光ディスク制御装置を提供す
る。駆動信号発生回路の出力信号で対物レンズを複数の情報面を有す
る光ディスクに近づけていき、合焦点通過検出回路により最初の合焦
点位置の通過が検出され、その位置からさらに所定量だけ対物レンズ
が光ディスクに近づくと、n回転分遅延回路が反転指令fを出力し、
対物レンズの向きを変えて光ディスクから遠ざけた後、フォーカス引
き込み回路が、アクチュエータ駆動回路に出力する信号aを、駆動信
号発生回路から制御回路の出力信号に切り換えると共に、制御回路を
起動してフォーカス引き込みを行う。

INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP2004/005510

A. CLASSIFICATION OF SUBJECT MATTER

Int.Cl⁷ G11B7/085, 7/125

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Int.Cl⁷ G11B7/085, 7/125

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Jitsuyo Shinan Koho	1922-1996	Toroku Jitsuyo Shinan Koho	1994-2004
Kokai Jitsuyo Shinan Koho	1971-2004	Jitsuyo Shinan Toroku Koho	1996-2004

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	JP 10-27357 A (Kenwood Corp.), 27 January, 1998 (27.01.98), Full text; Figs. 1 to 15 (Family: none)	1-18
A	JP 11-167727 A (Sony Corp.), 22 June, 1999 (22.06.99), Full text; Figs. 1 to 13 (Family: none)	1-18
A	JP 11-265511 A (Sony Corp.), 28 September, 1999 (28.09.99), Full text; Figs. 1 to 5 (Family: none)	1-18

☒ Further documents are listed in the continuation of Box C.☐ See patent family annex.

* Special categories of cited documents:

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"P" document published prior to the international filing date but later than the priority date claimed

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"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

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"&" document member of the same patent family

Date of the actual completion of the international search
12 May, 2004 (12.05.04)Date of mailing of the international search report
01 June, 2004 (01.06.04)Name and mailing address of the ISA/
Japanese Patent Office

Authorized officer

INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP2004/005510

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	JP 2002-373431 A (Kabushiki Kaisha Hitachi LGData Storage), 26 December, 2002 (26.12.02), Full text; Figs. 1 to 13 (Family: none)	1-18